

WHAT IS CLAIMED:

1. A hand held refrigeration leak detector comprising:
 - a main body;
 - 5 a flexible stalk coupled to the main body;
 - a head coupled to the flexible stalk; and
 - an LED light source mounted in the head.
2. The hand held detector as recited in claim 1 wherein the LED light source has
10 a spectral emission in the UV range.
3. The hand held detector as recited in claim 1 wherein the LED light source has a spectral emission in the UV to blue range.
- 15 4. The hand held detector as recited in claim 1 wherein the LED light source is comprised of at least two LEDs.
5. The hand held detector as recited in claim 1 further comprising a gas detector.
- 20 6. The hand held detector as recited in claim 5 wherein the gas detector is an integrated gas sensor mounted in the head.

7. The hand held detector as recited in claim 5 wherein the gas detector has a gas sensor port mounted in the head.
8. The hand held detector as recited in claim 1 wherein the main body is adapted
5 to contain a power supply.
9. The hand held detector as recited in claim 1 wherein the head is adapted to contain a power supply.
- 10 10. The hand held detector as recited in claim 1 wherein the main body further comprises a switch for activating the LED light source.
11. The hand held detector as recited in claim 10 wherein the switch is a momentary action switch.
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12. The hand held detector as recited in claim 1 wherein the flexible stalk is covered in a non-conducting material.
13. The hand held detector as recited in claim 1 wherein the flexible stalk is made
20 from a non-conducting material.

14. The hand held detector as recited in claim 1 wherein the head is covered in a non-conducting material.

15. The hand held detector as recited in claim 1 wherein the head is made from a
5 non-conducting material.

16. The hand held detector as recited in claim 5 wherein the main body further comprises a switch for activating the gas detector.

10 17. The hand held detector as recited in claim 5 wherein the gas detector is a halogen gas detector.

18. The hand held detector as recited in claim 10 wherein the switch for activating the LED light source is adapted to be actuated by while holding the main body of the
15 detector with a single hand.

19. The hand held detector as recited in claim 16 wherein the switch for activating the gas detector is adapted to be actuated by while holding the main body of the detector with a single hand.

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20. The hand held detector as recited in claim 1 wherein the main body is covered in a non-conducting material.

21. The hand held detector as recited in claim 1 wherein the main body is made from a non-conducting material.
- 5 22. The hand held detector as recited in claim 8 wherein the power supply is a battery source.
23. The hand held detector as recited in claim 9 wherein the power supply is a battery source.